

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: HALO COMMERCIAL

Report Number: P241818

Luminaire Tested: **PRS410D010-S4M12-41SNDMB**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P241818  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-49)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PRS410D010-S4M12-41SNDMB  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" NARROW DISTRIBUTION, DEEP TRIM MATTE BLACK  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

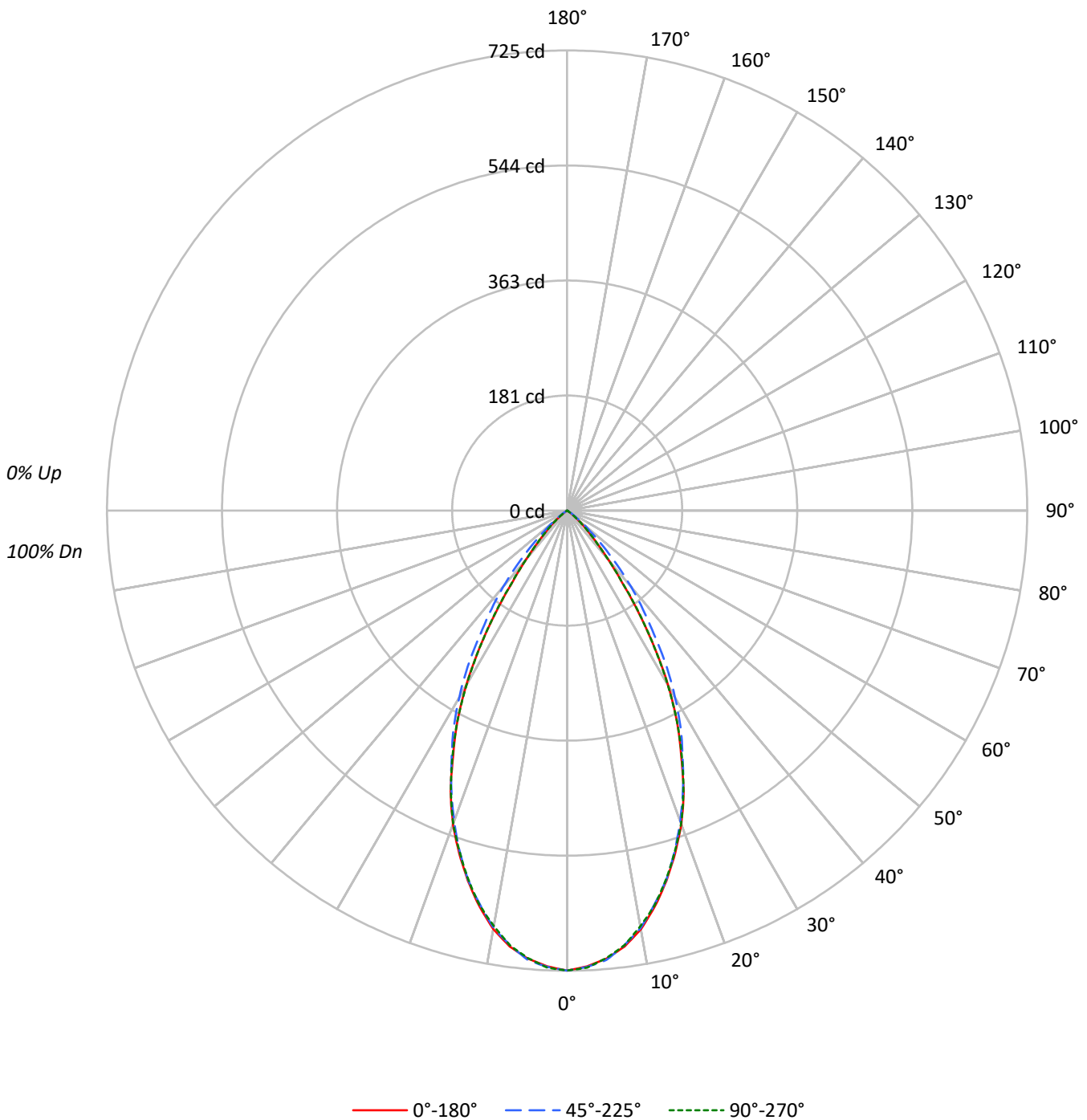
Lumens per Lamp: N/A  
Luminaire Lumens: 626.0 lumens  
Efficiency: N/A  
Efficacy: 62.6 lumens/watt  
Spacing Criteria (0/90/45): 0.85 / 0.85 / 0.89  
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')  
CIE Type: Direct

Input Watts (W): 10  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20					20					20					20					20	
RC	80					70					50					30					10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				
1	113	111	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	93				
2	108	103	99	95	106	101	98	94	98	95	92	95	93	90	92	90	88	87				
3	102	96	91	87	100	94	90	86	92	88	85	89	86	83	87	84	82	81				
4	97	89	84	80	95	88	83	79	86	82	78	84	80	77	82	79	76	75				
5	92	84	78	73	90	83	77	73	81	76	72	79	75	72	78	74	71	70				
6	87	78	72	68	86	78	72	68	76	71	67	75	70	67	73	69	66	65				
7	83	74	67	63	82	73	67	63	72	66	63	70	66	62	69	65	62	61				
8	79	69	63	59	78	69	63	59	67	62	59	66	62	58	65	61	58	57				
9	75	65	59	55	74	65	59	55	64	59	55	63	58	55	62	58	55	53				
10	71	62	56	52	70	61	56	52	60	55	52	60	55	51	59	54	51	50				

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	55471	55471	55471
5°	54454	54607	54377
10°	52052	51896	51663
15°	47847	47768	47689
20°	42829	42422	42748
25°	35877	36384	36130
30°	28186	30042	28009
35°	18305	22323	18492
40°	10092	15677	9892
45°	4979	8876	5196
50°	2263	3930	2263
55°	133	1468	133
60°	0	306	153
65°	0	0	0
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	66.3	10.6
10°-20°	167.9	26.8
20°-30°	195.7	31.3
30°-40°	136.7	21.8
40°-50°	51.2	8.2
50°-60°	8.0	1.3
60°-70°	0.1	0.0
70°-80°	0.0	0.0
80°-90°	0.0	0.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	430.0	68.7
0°-40°	566.7	90.5
0°-60°	625.9	100.0
0°-90°	626.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	626.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	725	725	725	725	725	
5°	709	710	711	708	708	66
15°	604	604	603	603	602	168
25°	425	431	431	432	428	194
35°	196	218	239	219	198	123
45°	46	60	82	60	48	39
55°	1	6	11	7	1	4
65°	0	0	0	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	724.7	724.7	724.7	724.7	724.7
2.5°	718.7	718.7	719.7	719.7	720.7
5°	708.7	709.7	710.7	707.7	707.7
7.5°	692.7	691.7	690.7	690.7	690.7
10°	669.7	668.7	667.7	665.7	664.7
12.5°	638.7	637.8	635.8	636.8	636.8
15°	603.8	603.8	602.8	602.8	601.8
17.5°	565.8	564.8	562.8	563.8	563.8
20°	525.8	523.8	520.8	521.8	524.8
22.5°	479.8	480.8	476.8	478.8	478.8
25°	424.8	430.8	430.8	431.8	427.8
27.5°	374.9	378.9	387.8	377.9	374.9
30°	318.9	326.9	339.9	325.9	316.9
32.5°	256.9	272.9	291.9	273.9	256.9
35°	195.9	217.9	238.9	218.9	197.9
37.5°	140.9	165.9	195.9	167.9	142.9
40°	101.0	123.0	156.9	123.0	99.0
42.5°	69.0	86.0	117.0	87.0	69.0
45°	46.0	60.0	82.0	60.0	48.0
47.5°	31.0	41.0	53.0	41.0	31.0
50°	19.0	27.0	33.0	27.0	19.0
52.5°	9.0	15.0	19.0	15.0	9.0
55°	1.0	6.0	11.0	7.0	1.0
57.5°	1.0	1.0	6.0	1.0	1.0
60°	0.0	1.0	2.0	1.0	1.0
62.5°	0.0	0.0	0.0	0.0	0.0
65°	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)